How to / Trackmania / Mediatracker / Custom camera

Author : TStarGermany (Translations:)

Introduction

The "Custom Camera" gives you full control of everything related to camera movement.

This is a huge tutorial for it will cover everything you will ever have to know. Take your time to read it completely and you'll soon become a Master of Shaolin Camera Kung Fu ;-)

I trust in you to have studied Mediatracker workflow & Camera Basics before.

By now you should already know how to insert blocks, keyframes etc, so we can concentrate on the really important things.

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Download our CUSTOM CAM test track. Open it in the track editor and record a Mediatracker Ghost. Then enter the "End Race" Mediatracker section.

Chapter 1 : Basics moves

CLICK IMAGE TO ZOOM

Our Custom Cam track

Easy and simple, a little ramp downwards at the start, then a turbo and some long left curve to the finish...

1. Place a trigger on the Start Block.
2. Insert a "Custom camera" track at 0:00.

Select the Start keyframe and our value section will popup.

First of all:
Select the Block and set the "Block End" to 0:06.00. Six seconds is about the time the recorded Ghost needs to drive from Start to Finish. In addition, activate "Keep on Playing", because you never know how slow a real player will be ;-)

Exercise: Free camera

By default, the "Target" Value is set on our Mediatracker Ghost. Set it to "None".

Now your camera is completely free to go wherever it wants to go...

You already learned "How to move the Camera", so select the Start keyframe and place your camera behind the start like in the picture.

Now go to your End Keyframe at 06.00.00 and Copy the values from your Start Keyframe to your End Keyframe.

The Endframe still having selected, move forward with the camera, so your it's somewhere near the Turbo.

Let the Camera look towards the Finish line...

Now you can preview your Clip. This is how your finished Camera play will look like.

Summary
The camera starts behind the Start ramp and takes 6 seconds to reach its final destination at the Turbo.

While the camera moves, you could see, that keeping the car in the middle of the screen didn't work too well...

That's because the "Free Camera" will just follow it's own given path from keyframe to keyframe in it's given time range, no matter what the driver is doing (he might be slow, he might crash etc) ... With a free camera, it's a matter of luck if your car is really visible during the Camera play...

Conclusion: This "Free Camera" might be good for flying around in the stadium (e.g. in the Intro or in a GPS clip) , but it's not good for keeping focus on the real driving action!

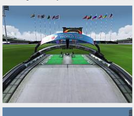
Exercise: Target

For the next exercise we have to start from scratch. Delete your old Block and insert a new one at 0:00.00 .. Set the "Block End" to 0:06.00 again and also activate "Keep on Playing", just like in the old block...

This time, keep the "**Target**" value set on your Ghost... The "Target" value automatically controls the camera's orientation , telling it **what to look at**.

When trying to move around now, you'll realise that the Target will always stay in the center of the screen, no matter what position your camera has.

But let's be precise for a better understanding:
The Target is not just ~the car~, it's the car's **exact geometrical center point.**



In the Start Keyframe, place your camera in front of the Start ramp.

See how the Camera will automatically focus the car.

Then go to your End Keyframe and position your camera like it would sit on the right pole.

Again the Camera will automatically focus the car.

Now preview your clip. Isn't that great ?

Summary
The camera starts in front of the Start ramp and takes 6 seconds to reach its final destination at the top of the right pole.

Although the position of your camera is moving steadily towards it's destination, it will always look at the Target car, even if the car doesn't drive as expected.

Conclusion: A "Target Camera" is the weapon of choice to keep focused on a car.

Drawback: The Target camera will always keep it's *head straight*, so nodding your head from side to side (Ctrl + Right Mousebutton) will not work.

A little help for moving the camera in "Target" mode
If you think that positioning the camera is a bit uneasy, you can help yourself by deactivating the Target (=getting into "Free camera" mode), then move your camera to your desired location and then switch back to the "Target".

Exercise: Anchor

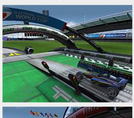
And again ;-) For the next exercise we have to start from scratch. Delete your old Block and insert a new one at 0:00.00 .. Set the "Block End" to 0:06.00 again and also activate "Keep on Playing", just like in the previous block...

This time, set the "Target" to "none", but set the "**Anchor**" on your Ghost.

The "Anchor" value automatically controls the camera's position during the camera play, telling the camera **from where** to look.

The camera is placed **relative to the Anchor**, which means that your camera will always **move with the Anchor**, keeping the defined **distance** to the "Anchor" at all times...

Let's be precise again: The "Anchor" is not just ~your car~, it's the **exact geometrical center point** of the car.



In the Start Keyframe, place your camera in a way that your car appears on the lower right corner.

Actually, you could let the camera look at anything you like, but keeping the car in the corner will give you some orientation of what's happening.

Select the End Keyframe and copy the values from your Start Keyframe to your End Keyframe.

Now the car will appear in the lower right corner again.
By copying the values we can be sure that the camera's relative position to the Anchor is the same, from Start to Finish.

Now preview your clip.

Summary
You'll see that the camera always stays in the same relative position to your anchor, no matter what the car does.
During the whole play the camera doesn't really look at anything particular, it's only the camera's position in relation to the Anchor that is automatically controlled.

Conclusion: An "Anchor Camera" is the weapon of choice to automatically to keep the camera moving along with the car.

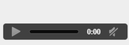
Exercise: Target + Anchor

Agaaaain ;-) For the next exercise we have to start from scratch. Delete your old Block and insert a new one at 0:00.00 .. Set the "Block End" to 0:06.00 again and also activate "Keep on Playing", just like in the previous block...

This time, set the **"Target" AND "Anchor"** on your Ghost.

As you can guess, this time the camera will always keep focus on the anchor and in addition, the camera will move along with the anchor as well...

Place your Camera in Front of the Car on the Start Keyframe, copy the values to the End Keyframe & preview your clip.



Summary
The Car is always in the center of the screen PLUS the camera always keeps the same distance to your car... almost like a default driving cam.

Conclusion: An "Anchor+Target Camera" is the weapon of choice to focus on the 1:1 driving action of a car.
Drawback: Neither Anchor or Target will *automatically turn* the camera depending in which direction your car is driving.

Why? As I told you, it's always the geometrical centerpoint of the car, which Target+Anchor are aiming at... both functions can't visually display the fact, that this little center point is able to *rotate* (which happens as soon as your car changes its direction!). In chapter 4 we will present a solution for this little problem.

Ok, you've completed the "Basics". You're already able to move your camera, keep the camera on the car and keep the camera moving with the car... Not bad , but let's get into detail...

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